AUTHOR INDEX, VOLUME 18

A

PAGE

Adamson, R. M. 77
Agbakoba, Chuma S. O. 19, 168
Akhavein, A. A. 378
Akobundu, O. 403
Alban, E. K. 174
Anderson, J. L. 443, 445
Anderson, R. N. 162
Anderson, W. P. 338
Appleby, A. P. 505
Arle, H. F. 85
Ashford, R. 235, 754

B

Bailey, G. W. 413
Baker, H. R. 10
Banting, J. D. 80
Barrentine, J. L. 365, 373
Barrentine, W. L. 500
Baler, E. 396
Baur, J. R. 22, 497, 549
Bayer, D. E. 403
Beasley, C. A. 218, 223
Becton, A. J. 410
Bendixen, L. E. 74, 408, 599
Beste, C. E. 484
Bettis, R. B. 106
Bhan, V. M. 733
Bingham, S. W. 193, 199
Biswas, P. K. 106
Black, C. C. 399
Blackburn, R. D. 703
Blackmon, W. J. 419, 636
Bovey, R. W. 22, 164, 447, 497, 549
Bradbury, I. K. 235
Brady, H. A. 204
Briscoe, G. A. 631
Brown, R. H. 399
Buchanan, G. A. 149, 279
Buchholtz, K. P. 101, 115, 214, 642
Burns, E. R. 149
Burnside, O. C. 272
Butler, H. S. 509, 653

C

Canode, C. L. 288
Carlson, W. C. 98
Carter, L. M. 717
Cavers, P. B. 202
Chakrabarti, A. G. 106
Chamberlain, E. W. 410
Chen, T. M. 399
Chenault, E. W. 341
Chilcote, D. O. 725, 729
Chow, P. N. P. 492
Cibes-Viade, H. 470
Coble, H. D. 352, 653
Cochrane, D. R. 413
Coffey, D. L. 577
Cohen, A. 625
Collins, H. A. 106
Comes, R. D. 439, 687
Cronin, E. H. 623

D

Dale, J. E. 586
Danielson, L. L. 551, 707
Davis, T. S. 292
Dawson, J. H. 225
Deli, J. 692
Demint, R. J. 439, 687
Derscheid, L. A. 590

PAGE

Doll, J. D. 357
Dowler, C. C. 164, 461
Duble, R. L. 174
Dunford, M. P. 338
Dunn, S. 611

E

Eaton, B. J. 37
Eckert, R. E., Jr. 41, 154
Egley, G. H. 586
Elkins, W. L. 505
Elliott, J. G. 681
Elwell, H. M. 37
Eshel, Y. 625
Evans, R. A. 41, 89, 154, 451, 546, 575, 583, 697

F

Farmer, F. S. 636
Flynt, T. O. 497
Foote, L. E. 307
Foy, C. L. 199
Fox, W. P. 223
Frank, P. A. 439, 687
Frans, R. E. 711
Fullerton, T. M. 711
Furtick, W. R. 505

G

Gentner, W. A. 551, 629, 715
Geronimo, J. 48
Gifford, R. O. 41
Goodin, J. R. 19, 168
Grover, R. 110
Guardia, F. S. 464

H

Hagin, R. D. 197
Hamilton, K. C. 85
Hanson, J. B. 1
Hardcastle, W. S. 125, 336
Hass, R. H. 33
Hastings, R. E. 329
Hastings, R. F. 140
Hauser, E. W. 461
Henkel, R. 575
Herr, D. E. 74, 459
Herr, J. W. 48
Hilton, H. W. 608
Hodgson, J. M. 253
Hogue, E. J. 179, 580
Holbo, H. R. 154
Holt, E. C. 174
Hooper, J. F. 583
Hubbard, J. L. 244, 247
Hull, H. M. 389
Hull, R. J. 118

I

Ilnicki, R. D. 25, 122

J

James, C. S. 137
Jeffrey, L. S. 345
Johnson, B. J. 128, 616
Jolliffe, V. A. 382
Jones, G. E. 545
Jordan, L. S. 382

K

Katz, S. E. 122
Kay, B. L. 238, 451

AUTHOR INDEX, VOLUME 18

A

PAGE

Adamson, R. M. 77
Agbakoba, Chuma S. O. 19, 168
Akhavein, A. A. 378
Akobundu, O. 403
Alban, E. K. 174
Anderson, J. L. 443, 445
Anderson, R. N. 162
Anderson, W. P. 338
Appleby, A. P. 505
Arle, H. F. 85
Ashford, R. 235, 754

B

Bailey, G. W. 413
Baker, H. R. 10
Banting, J. D. 80
Barrentine, J. L. 365, 373
Barrentine, W. L. 500
Baler, E. 396
Baur, J. R. 22, 497, 549
Bayer, D. E. 403
Beasley, C. A. 218, 223
Becton, A. J. 410
Bendixen, L. E. 74, 408, 599
Beste, C. E. 484
Bettis, R. B. 106
Bhan, V. M. 733
Bingham, S. W. 193, 199
Biswas, P. K. 106
Black, C. C. 399
Blackburn, R. D. 703
Blackmon, W. J. 419, 636
Bovey, R. W. 22, 164, 447, 497, 549
Bradbury, I. K. 235
Brady, H. A. 204
Briscoe, G. A. 631
Brown, R. H. 399
Buchanan, G. A. 149, 279
Buchholtz, K. P. 101, 115, 214, 642
Burns, E. R. 149
Burnside, O. C. 272
Butler, H. S. 509, 653

C

Canode, C. L. 288
Carlson, W. C. 98
Carter, L. M. 717
Cavers, P. B. 202
Chakrabarti, A. G. 106
Chamberlain, E. W. 410
Chen, T. M. 399
Chenault, E. W. 341
Chilcote, D. O. 725, 729
Chow, P. N. P. 492
Cibes-Viade, H. 470
Coble, H. D. 352, 653
Cochrane, D. R. 413
Coffey, D. L. 577
Cohen, A. 625
Collins, H. A. 106
Comes, R. D. 439, 687
Cronin, E. H. 623

D

Dale, J. E. 586
Danielson, L. L. 551, 707
Davis, T. S. 292
Dawson, J. H. 225
Deli, J. 692
Demint, R. J. 439, 687
Derscheid, L. A. 590

PAGE

Doll, J. D. 357
Dowler, C. C. 164, 461
Duble, R. L. 174
Dunford, M. P. 338
Dunn, S. 611

E

Eaton, B. J. 37
Eckert, R. E., Jr. 41, 154
Egley, G. H. 586
Elkins, W. L. 505
Elliott, J. G. 681
Elwell, H. M. 37
Eshel, Y. 625
Evans, R. A. 41, 89, 154, 451, 546, 575, 583, 697

F

Farmer, F. S. 636
Flynt, T. O. 497
Foote, L. E. 307
Foy, C. L. 199
Fox, W. P. 223
Frank, P. A. 439, 687
Frans, R. E. 711
Fullerton, T. M. 711
Furtick, W. R. 505

G

Gentner, W. A. 551, 629, 715
Geronimo, J. 48
Gifford, R. O. 41
Goodin, J. R. 19, 168
Grover, R. 110
Guardia, F. S. 464

H

Hagin, R. D. 197
Hamilton, K. C. 85
Hanson, J. B. 1
Hardcastle, W. S. 125, 336
Hass, R. H. 33
Hastings, R. E. 329
Hastings, R. F. 140
Hauser, E. W. 461
Henkel, R. 575
Herr, D. E. 74, 459
Herr, J. W. 48
Hilton, H. W. 608
Hodgson, J. M. 253
Hogue, E. J. 179, 580
Holbo, H. R. 154
Holt, E. C. 174
Hooper, J. F. 583
Hubbard, J. L. 244, 247
Hull, H. M. 389
Hull, R. J. 118

I

Ilnicki, R. D. 25, 122

J

James, C. S. 137
Jeffrey, L. S. 345
Johnson, B. J. 128, 616
Jolliffe, V. A. 382
Jones, G. E. 545
Jordan, L. S. 382

K

Katz, S. E. 122
Kay, B. L. 238, 451

AUTHOR INDEX, VOLUME 18

PAGE

Kearney, P. C. 464
Keeley, P. E. 393, 437
Ketchersid, M. L. 447
Kill, D. L. 307
Kleifeld, Y. 16
Klingman, G. C. 541
Klomp, G. J. 575
Kommedahl, Thor 29
Koo, F. K. S. 470
Kratky, B. A. 577
Kreps, L. B. 481, 623
Kust, C. A. 101, 115, 140, 214, 329, 561, 565, 642

L

Lavake, D. E. 341
Lavy, T. L. 53
Lawrence, E. 608
LeBaron, H. M. 410
Lee, J. M. 596
Lee, W. O. 171
Lehman, S. K. 33
Leonard, O. A. 403
Linscott, D. L. 197, 378
Liu, L. C. 470
Long, J. W. 396
Lund, Z. F. 279
Lynd, J. Q. 596

M

Malhotra, S. S. 1
Martin, S. C. 389
Maun, M. A. 202
McCall, H. G. 549
McRae, D. H. 604
McReynolds, W. D., Jr. 270
McWhorter, C. G. 285, 500
Meggitt, W. F. 255, 260, 357
Meikle, R. W. 475
Menges, R. M. 244, 247
Merkle, M. G. 447
Meyer, R. E. 497, 525
Miller, J. H. 393, 717
Millhollon, R. W. 333
Moody, K. 214, 642
Moreland, D. E. 419, 636
Morton, H. L. 33, 164
Mulliken, J. A. 561, 565
Mullison, W. R. 738
Murdoch, C. L. 711

N

Nalewaja, J. D. 276, 345
Nashed, R. B. 25, 122
Norton, J. A. 520, 522

O

Ohman, J. H. 29
Old, K. M. 29
Owen, R. E. 238

P

Parochetti, J. V. 555
Pearson, R. W. 279
Peltier, W. H. 7
Penner, D. 357, 360
Peters, E. J. 112, 572
Plimmer, J. R. 464
Pope, J. D., Jr. 413
Prendeville, G. N. 137

R

Rahman, A. 754
Reimer, D. N. 4
Rieder, G. 101
Robinson, E. L. 751
Robocker, W. C. 288, 720
Rodebush, J. E. 443
Rodgers, C. A. 134
Runyan, R. L. 10
Ryan, E. W. 29
Ryan, G. F. 614

S

Santelmann, P. W. 37
Schaelling, J. P. 455
Schafer, D. E. 725, 729
Schrader, L. E. 565
Schreiber, M. M. 137, 484
Schweizer, E. E. 131, 183, 386
Selman, F. L. 206, 619
Sharma, M. P. 57
Shellhorn, S. J. 389
Shimabukuron, R. H. 231
Slife, F. W. 349, 352, 396, 509, 653, 733
Smith, D. T. 255, 260, 489, 515
Smith, R. J., Jr. 464, 467
Sompolinsky, D. 625
Spooner, A. E. 711
Sterrett, J. P. 199
Stoller, E. W. 733
Storey, J. B. 520, 522
Stritzke, J. F. 112, 572, 590
Stroube, E. W. 74, 459
Sutton, D. L. 193, 703
Swanson, H. R. 231
Swithenbank, C. 604

T

Talbert, R. E. 10
Taylor, T. D. 64, 68
Taylorson, R. B. 265
Thompson, L. Jr. 349, 509
Thullen, R. J. 393, 437
Thurston, A. D., Jr. 413
Timmons, F. L. 294
Todd, H. G. 636
Toth, S. J. 4
Tsay, S. F. 596
Tschirley, F. H. 164
Turley, R. H. 77
Tweedy, J. A. 270

U

Upchurch, R. P. 206, 619

V

Vanden Born, W. H. 57
Vandiver, C. W. 518
Vostral, H. J. 115

W

Waldron, A. C. 74
Walter, J. P., Jr. 520
Warnen, G. F. 64, 68, 137, 179, 365, 373, 555, 577, 692
Wax, L. M. 98
Weatherspoon, D. M. 183
Webster, H. L. 206
Welch, E. B. 7
Weldon, L. W. 703
Wiese, A. F. 341, 515, 518
Wilkinson, R. E. 125, 292, 336
Williams, C. S. 307
Williams, M. C. 479, 481, 623
Williford, J. R. 751
Wills, G. D. 631
Wooten, O. B. 751
Worsham, A. D. 648
Wright, W. G. 590

Y

Yeo, R. R. 282
Yih, R. Y. 604
Young, J. A. 41, 89, 154, 451, 546, 575, 583, 697

SUBJECT INDEX, VOLUME 18

A

PAGE

Aberrations in sugarbeet roots, induced by trifluralin 131
Absorption and dissipation of TCA, by wheat and oats 492
Absorption and translocation, atrazine in soybeans, effect of root temperature on 115
Absorption and translocation, of ^{14}C-labeled 2,4-D and picloram in field bindweed 168
Absorption, distribution, and metabolism of linuron in corn, soybean, and crabgrass 25
Absorption, metabolism, and translocation, of 2,4-D by honeyvine milkweed 653
Absorption, of ametryne and diuron by soils 470
Absorption of 2,4,5-T, increased in tree leaves by ammonium nitrate and phosphoric acid 204
Absorption, root and foliar, of atrazine applied postemergence to broadleaf weeds 349
Absorption, root, of amiben and atrazine, herbicide and phosphorus influence on 357
Absorption, translocation, metabolism, and toxicity, of 2,4-D in yellow nutsedge 733
Achene dormancy, in fumitory 345
Activity, herbicidal, and molecular structure, of some substituted ureas 580
Activity, herbicidal, as affected by soil incorporation and rainfall 515
Adherence, efficacy, and volatility of herbicides, influence of three drift control adjuvants on 505
Adjuvants, drift control, influence on volatility, adherence, and efficacy of herbicides 505
Aerial applications of 2,4,5-T, factors influencing commercial .. 57
Aerially-applied herbicides, effect on Texas and Puerto Rico forests 164
Alfalfa, control of yellow rocket and white cockle 329
Alfalfa, dodder control with dichlobenil in 225
Alliphatic moiety of chlorophenoxy compounds, additions to 197
AMA, effect on synthesis and utilization of food reserves in purple nutsedge 174
Ametryne and diuron, absorption by soils 470
Amiben and atrazine, herbicide and phosphorus influence on root absorption of 357
Amiben and dinoben derivatives, behavior in Arkansas soils ... 10
Amitrole and diuron toxicity, regulation by phosphorus 619
Amitrole, intensive cultivation, and 2,4-D, response of Canada thistle ecotypes to 253
Amitrole, residues and rate of dissipation in irrigation water .. 439
Ammonium nitrate and phosphoric acid, increase 2,4,5-T absorption by tree leaves 204
Anatomical and morphological effects, pyrazon on bean 443
Anatomy, of purple nutsedge 631
Application methods and various herbicides, for control of persimmon 572
Application of chemicals, a spray device for 549
Application, of herbicides in foam 500
Applications, directed, of herbicides in irrigated cotton 85
Aquatic plants, effect of diquat on uptake of copper in 703
Aquatic plants in a reservoir, factors affecting growth of rooted 7
Aquatic weeds, dissipation of endothall and effects on fish and 282
Arkansas soils, behavior of amiben and dinoben derivatives in 10
Arsenical herbicides, influence on vitality of tubers of yellow nutsedge 437
Aspen and balsam poplar, foliar penetration of picloram and 2,4-D in 57
Atrazine and amiben, herbicide and phosphorus influence on root absorption of 357
Atrazine and simazine, resistance of common groundsel to 614
Atrazine, environmental influence on the tolerance of corn to 509
Atrazine, influence of soybean seed size on response to 162
Atrazine in soybeans, effect of root temperature on absorption and translocation of 115

PAGE

Atrazine metabolism, in cotton as basis for intermediate tolerance 231
Atrazine, root and foliar absorption of, applied postemergence to broadleaf weeds 349
Atrazine, tolerance of sorghum to postemergence applications of 410
Auxin, effect on sprouting in poison ivy 199
Axillary buds, development from Johnsongrass rhizomes 218

B

Bactra verutana Zeller, biological control studies of yellow nutsedge with 393
Balsam poplar and aspen, foliar penetration of picloram and 2,4-D in 57
Bar, a low temperature-gradient, for seed germination studies 575
Barnyardgrass control, molinate in rice 467
Bean chloroplast ultrastructure, effect of pyrazon on 455
Bean, morphological and anatomical effects of pyrazon on 443
Bean plants, some effects of humidity on the translocation of 2,4,5-T in 396
Behavior of amiben and dinoben derivatives, in Arkansas soils 10
Behavior of potassium azide, in soil 555
Bensulide and trifluralin phytotoxicity, in several soils 244
Bensulide, control of purple nutsedge with 338
Bentgrass, fescue, and bluegrass, effects of 2,4-D and ioxynil on 77
Benzadox, control of kochia in sugarbeets with 183
Benzonitriles, substituted, and derivatives, phytotoxic properties of 551
Bergapten and xanthotoxin, in spring parsley 479
Bermudagrass, recently-established, effects of DCPA on winter injury of 711
Biological control studies, on yellow nutsedge with *Bactra verutana* Zeller 393
Bluegrass, bentgrass, and fescue, effects of 2,4-D and ioxynil on 77
Bromoxynil, selectivity in a resistant and susceptible species 725
Bromoxynil, translocation and degradation in a resistant and susceptible species 725
Brush, tractor-mounted sprayers for applying herbicides to 497
Buds, axillary, development from Johnsongrass rhizomes 218

C

California, Cismontane, paraquat for range seeding in 238
Canada and United States, history of weed control in 294
Canada thistle control, on roadsides 307
Canada thistle ecotypes, response to 2,4-D, amitrole, and intensive cultivation 253
Canal-bank treatment for weed control, herbicides and irrigation water following 687
Carbamates, herbicidal, and growth regulators, interactions between 137
Carbohydrate storage and utilization, by yellow rocket, white cockle, and hoary alyssum 140
Carbon, activated, root dips, on transplanted strawberries 577
Carbonic anhydrase, CO_2 compensation concentration, and rate of photosynthesis, of plants 399
Carrot plantings, persistence, selectivity, and movement of soil-incorporated herbicides in 247
^{14}C-chlorbromuron, metabolism of, in corn and cucumber 122
Chamber, improved mixing, for variable-dosage sprayers 717
Chamber, mist, for the culture of plants or explant segments 223
Chemical composition, five species of *Nymphaeaceae* 4
Chemical control, western false hellebore 481
Chemicals, cultivation, and cropping, for field bindweed control 590
Chemicals, spray device for application to plants 549
Chenopodium humile L., germination and maturation of 382
Chlorella, the interactions of Cu^{++} and CN^- of paraquat phytotoxicity to 596

PAGE

2-Chloroethylphosphonic acid, ethylene, and witchweed germination 586
Chlorophenoxy compounds, additions to the alliphatic moiety of 197
Chloroplasts and mitochondria, effects of diphenylether herbicides on reactions of 636
Chloroplasts and mitochondria reactions, effects of 3,5-dibromo-4-hydroxybenzaldehyde *O*-(2,4-dinitrophenyl)oxime on 419
Chloroplast ultrastructure, bean effect of pyrazon on 455
Chloroxuron and nitralin combination, effects on weeds and soybeans 616
Chloroxuron, factors influencing the phytotoxicity of 98
Chlorpropham and terbacil, isoparaffinic oil as a carrier for 365
CN^- and Cu^{++} interactions, with paraquat phytotoxicity to a *Chlorella* 596
CO_2 compensation concentration, rate of photosynthesis, and carbonic anhydrase activity, of plants..... 399
Combination of nitralin and chloroxuron, effects on weeds and soybeans 616
Combinations, herbicide, bioassay with rice 336
Combinations, herbicides and other pesticides on soybeans 128
Common groundsel resistance, to simazine and atrazine 614
Common purslane, light quality effects on life cycle of 611
Competition, weed, influence on cotton 149
Competitive ability of weeds, soil moisture effects on 518
Control and development, of honeyvine milkweed 352
Control, by altering growth form to precondition yellow nutsedge for 599
Control, chemical, of western false hellebore 481
Control of barnyardgrass, molinate in rice 467
Control of Canada thistles, on roadsides 307
Control of dodder, in alfalfa with dichlobenil 225
Control of field bindweed, granular vs. liquid formulations of picloram, HRS 587, fenac, and 2,3,6-TBA for 341
Control of field bindweed, with cultivation, cropping, and chemicals 590
Control of green foxtail in wheat, selective action of trifluralin for 754
Control of persimmon, with various herbicides and methods of application 572
Control of purple nutsedge, with bensulide 338
Control, of spring parsley on rangeland 623
Control of velvetleaf, influenced by herbicide placement and seed depth 459
Control, of wild cane in corn 272
Control studies, biological, on yellow nutsedge with *Bactra verutana* Zeller 393
Cool-season grasses, seedling, selective weed control in 288
Copper uptake, effect of diquat in aquatic plants 703
Corn and cucumber, metabolism of ^{14}C-chlorbromuron in 122
Corn, control of wild cane in 272
Corn, soybean, and crabgrass, linuron absorption, distribution, and metabolism in 25
Corn, soybeans, and rye, effect of nitrogen form on simazine accumulation in 270
Corn, sweet, effects of weed control methods on 707
Corn tolerance to atrazine, environmental influence on 509
Cotton, atrazine metabolism in, as a basis for intermediate tolerance 231
Cotton, combined effect of trifluralin and MSMA on Johnsongrass control in 16
Cotton, herbicides applied as liquid sprays and granules for weed control in 751
Cotton, influence of weed competition on 149
Cotton, irrigated, directed applications of herbicides in 85
Crabgrass, corn, and soybean, linuron absorption, distribution, and metabolism in 25
Cropping, chemicals, and cultivation, for field bindweed control 590
Crop protection program, Weed Science in 74
Cruciferae, germination characteristics of 41
Cu^{++} and CN^- interactions, with paraquat phytotoxicity to a *Chlorella* 596
Cucumber and corn, metabolism of ^{14}C-chlorbromuron in 122
Cultivation, cropping, and chemicals, for field bindweed control 590
Cultivation, intensive, 2,4-D, and amitrole, response of Canada thistle ecotypes to 253
Culture, plants and explant segments in a mist chamber 223

PAGE

Culture solutions, uptake of herbicide in soybean roots in 642
Curly dock, influences of soil temperature on reproduction of 202

D

2,4-D, absorption, metabolism, and translocation by honeyvine milkweed 653
2,4-D, amitrole, and intensive cultivation, response of Canada thistle ecotypes to 253
2,4-D and EPTC, antagonistic interaction of 484
2,4-D and ioxynil, effects on seedling fescue, bluegrass, and bentgrass 77
2,4-D and picloram, absorption and translocation in field bindweed 168
2,4-D and picloram, foliar penetration in aspen and balsam poplar 57
2,4-D, effect on response of spring wheat to 235
2,4-D in yellow nutsedge, toxicity, absorption, translocation and metabolism of 733
2,4-D movement in field bindweed, picloram enhances 19
2,4-D, uptake and translocation in parrotfeather 193
Dalapon and pyrazon, influence on the seasonal growth of sugarbeets 386
Dalmatian toadflax, seed characteristics and seedling emergence of 720
DCPA, effects on winter injury of recently-established Bermudagrass 711
Degradation and persistence, of pyrazon in soil 260
Degradation and translocation of bromoxynil, in a resistant and susceptible species 725
Degradation kinetics and persistence, of silvex in water and sediment 413
Development and control, of honeyvine milkweed 352
Diallate and triallate, effect on wild oat and wheat cells 80
3,5-Dibromo-4-hydroxybenzaldehyde *O*-(2,4-dinitrophenyl)oxime, effects on reactions of mitochondria and chloroplasts 419
Dichlobenil, dodder control in alfalfa with 225
Dichlobenil, effects on assimilate transport in purple nutsedge 403
Dichlobenil, fluometuron, and pebulate, pine seedling response to 292
Dihydroxybenzenes and paraquat, comparisons of 179
Dinoben and amiben derivatives, behavior in Arkansas soils ... 10
Diphenamid, uptake, translocation, and herbicidal effect of 692
Diphenylether herbicides, effects of reactions of mitochondria and chloroplasts 636
Diquat, effect on uptake of copper in aquatic plants 703
Dissipation and absorption of TCA, by wheat and oats 492
Dissipation, of endothall and effects on aquatic weeds and fish 282
Distribution and movement, of pyrazon in soil 255
Distribution, metabolism, and absorption of linuron, in corn, soybean, and crabgrass 25
Diuron and ametryne, absorption by soils 470
Diuron and amitrole toxicity, regulation by phosphorus 619
Dodder control, in alfalfa with dichlobenil 225
Dormancy, achene, in fumitory 345
Dormancy and sprouting cycles, of wild garlic 112
Dormancy and viability changes, of weed seeds in soils 265
Dormancy, weed seed, histochemical studies in 106
Downy brome communities, functional environment in relation to weed control and revegetation 154
Drift control adjuvants, influence on volatility, adherence, and efficacy of herbicides 505

E

Economic evaluation, of Scotch thistle suppression 583
Ecotypes, Canada thistle, response to 2,4-D, amitrole, and intensive cultivation 253
Efficacy, volatility, and adherence of herbicides, influence of three drift control adjuvants on 505
Emergence, of fourwing saltbush after spraying shrubs with picloram 389
Emergence, seedling, and seed characteristics, of Dalmatian toadflax 720
Endothall, dissipation and effects on aquatic weeds and fish 282
Environmental influence, on the tolerance of corn to atrazine 509
Environment functions, of downy brome communities in relation to weed control and revegetation 154

PAGE

EPTC and 2,4-D, antagonistic interaction of ... 484
EPTC effects, on fatty acids and hydrocarbons ... 125
Establishment of alien annual weed species and plant litter, in rangeland communities ... 697
Ester and salt formulations of picloram, comparison of ... 447
Ethylene, 2-chloroethylphosphonic acid, and witchweed germination ... 586
Evaluation technique, for preemergence herbicides for sugarcane ... 608

F

Fatty acids and hydrocarbons, EPTC effects on ... 125
Fenac, 2,3,6-TBA, picloram, and HRS 587, granular vs. liquid formulations, for control of field bindweed ... 341
Fescue, bluegrass, and bentgrass, effects of 2,4-D and ioxynil on 77
Field bindweed control, with cultivation, cropping, and chemicals ... 590
Field bindweed control, with granular vs. liquid formulations of picloram, HRS 587, fenac, and 2,3,6-TBA ... 341
Field bindweed, picloram enhances 2,4-D movement in ... 19
Fish, dissipation of endothall and effects on aquatic weeds and 282
Fluometuron, pebulate, and dichlobenil, pine seedling response to ... 292
Foam, application of herbicides in ... 500
Foliar and root absorption, of atrazine applied postemergence to broadleaf weeds ... 349
Food production in Canada, the weed scientists' role ... 545
Food production in Great Britain, contribution of weed science to ... 681
Food reserves, in purple nutsedge, effect of AMA on synthesis and utilization of ... 174
Food reserves, metabolism in germinating velvetleaf ... 565
Formulations, granular vs. liquid, of picloram, HRS 587, fenac, and 2,3,6-TBA for control of field bindweed ... 341
Formulations, salt and ester, of picloram, comparison of ... 447
Fourwing saltbush, emergence after spraying shrubs with picloram ... 389
Frost, effect on response of spring wheat to 2,4-D ... 235
Fumitory, achene dormancy in ... 345

G

Germination and maturation, of *Chenopodium humile* L. ... 382
Germination characteristics, of three species of Cruciferae ... 41
Germination control, of Johnsongrass rhizome buds ... 118
Germination, of velvetleaf ... 561
Germination studies, weed, a low temperature-gradient bar for 575
Granules and liquid sprays for weed control in cotton, herbicides applied as ... 751
Grasses, seedling cool-season, selective weed control in ... 288
Grasses, seed of, effect of picloram on production and quality of ... 171
Great basin, invasion of medusahead into ... 89
Great Britain, contribution of weed science to food production in ... 681
Green foxtail in wheat, selective action of trifluralin for control of ... 754
Green sunfish, uptake and elimination of simazine by ... 134
Growth form altering, to precondition yellow nutsedge for control ... 599
Growth of pecan trees and weed control, effect of herbicides on 522
Growth of rooted aquatic plants in a reservoir, factors affecting 7
Growth regulators and herbicidal carbamates, interactions between ... 137
Growth, seasonal, of sugarbeets, influence of pyrazon and dalapon on ... 386

H

Herbicidal activity and molecular structure, of some substituted ureas ... 580
Herbicidal activity, as affected by soil incorporation and rainfall ... 515
Herbicidal carbamates and growth regulators, interactions between ... 137
Herbicidal control of Macartney rose, influence of mowing and spraying dates on ... 33
Herbicidal effect, uptake, and translocation, of diphenamid ... 692

PAGE

Herbicidal properties, preemergence, of nitralin analogs in nutrient solution ... 629
Herbicide and inorganic phosphate, influence on phytase in seedlings ... 360
Herbicide and phosphorus influence, on root absorption of amiben and atrazine ... 357
Herbicide applications, directed, in irrigated cotton ... 85
Herbicide combinations, bioassay with rice ... 336
Herbicide movement in plants, effect of metabolic inhibitors 68
Herbicide performance, in flue-cured tobacco ... 648
Herbicide placement and seed depth, velvetleaf control as influenced by ... 459
Herbicides, aerially-applied, effect on Texas and Puerto Rico forests ... 164
Herbicides and other pesticides, combinations of, on soybeans 128
Herbicides, application in foam ... 500
Herbicides, applied as liquid sprays and granules for weed control in cotton ... 751
Herbicides, arsenical, influence on vitality of tubers of yellow nutsedge treated with ... 437
Herbicides, diphenylether, effects on reactions of mitochondria and chloroplasts ... 636
Herbicides, effect on lateral roots and nut quality of pecans ... 520
Herbicides, effect on weed control and growth of pecan trees ... 522
Herbicides, effects on root growth, an implanted soil mass technique for study of ... 279
Herbicides, effects on water and its inhabitants ... 738
Herbicides, influence of three drift control adjuvants on volatility, adherence, and efficacy of ... 505
Herbicides in irrigation water, following canal-bank treatment for weed control ... 687
Herbicides, injector-planter for subsurface placement of ... 461
Herbicides, movement through excised plant tissue ... 64
Herbicides, preemergence, for sugarcane, evaluation techniques for ... 608
Herbicides, release by soybean roots in culture solutions ... 214
Herbicides, soil-incorporated, in carrot plantings, selectivity, movement, and persistence of ... 247
Herbicides, tractor-mounted sprayers for applying to brush ... 497
Herbicides, uptake by soybean roots in culture solutions ... 642
Herbicides, uptake by soybeans seed ... 101
Herbicides, various, and methods of application for control of persimmon ... 572
Herbicide translocation and effect on root growth, a technique to assay ... 715
Histochemical studies, in weed seed dormancy ... 106
History, weed control in the United States and Canada ... 294
Hoary alyssum, yellow rocket, and white cockle, carbohydrate storage and utilization by ... 140
Honey mesquite morphology, picloram and 2,4,5-T influence on ... 525
Honeyvine milkweed, absorption, metabolism, and translocation of 2,4-D by ... 653
Honeyvine milkweed, development and control of ... 352
HRS 587, fenac, 2,3,6-TBA, and picloram, granular vs. liquid formulations, for control of field bindweed ... 341
Humidity, some effects on the translocation of 2,4,5-T in bean plants ... 396
Hydrocarbons and fatty acids, EPTC effects on ... 125

I

Implanted soil mass technique, to study herbicide effects on root growth ... 279
Inhabitants of water, effects of herbicides on ... 738
Inhibition, photosynthesis by pyriclor ... 475
Injector-planter, for subsurface placement of herbicides ... 461
Inorganic phosphate and herbicide influence, on phytase in seedlings ... 360
Intensive cultivation, 2,4-D, and amitrole, response of Canada thistle ecotypes to ... 253
Interaction, antagonistic, of EPTC and 2,4-D ... 484
Interactions, between herbicidal carbamates and growth regulators ... 137
Interactions, of Cu^{++} and CN^{-} with paraquat phytotoxicity to a *Chlorella* ... 596
Intermediate tolerance, atrazine metabolism in cotton as a basis for ... 231

SUBJECT INDEX, VOLUME 18

PAGE

Ioxynil and 2,4-D, effects on seedling fescue, bluegrass, and bentgrass 77
Irrigation water, amitrole residues and rate of dissipation in 439
Ivyleaf morningglory and peppermint, selective action of terbacil on 373

J

Johnsongrass control in cotton, combined effect of trifluralin and MSMA on 16
Johnsongrass control, in sugarcane with MSMA 333
Johnsongrass rhizome buds, germination control of 118
Johnsongrass rhizomes, development of axillary buds from 218

K

Kinetics, degradation, and persistence, of silvex in water and sediment 413
Kochia in sugarbeets, control with benzadox 183

L

Life cycle of common purslane, light quality effects on 611
Light quality effects, on the life cycle of common purslane 611
Light regime and paraquat effects, on quackgrass growth 378
Linuron absorption, distribution, and metabolism in corn, soybean, and crabgrass 25
Liquid sprays and granules for weed control in cotton, herbicides applied as 751

M

Macartney rose, influence of mowing and spraying dates on herbicidal control of 33
Maintained weed infestations, under field conditions 206
Maturation and germination of *Chenopodium humile* L. 382
Medusahead, invasion, into the Great Basin 89
Medusahead, phenology of reproduction of 451
Metabolic inhibitors, effect on herbicide movement in plants 68
Metabolism, absorption, and distribution, of linuron in corn, soybean, and crabgrass 25
Metabolism of ^{14}C-chlorbromuron, in corn and cucumber 122
Metabolism of food reserves, in germinating velvetleaf 565
Metabolism, toxicity, absorption, and translocation, of 2,4-D in yellow nutsedge 733
Metabolism, translocation, and absorption, of 2,4-D by honeyvine milkweed 653
Mist chamber, for the culture of plants or explant segments ... 223
Mitochondria and chloroplasts, effects of diphenylether herbicides on reactions 636
Mitochondria and chloroplasts reactions, effects of 3,5-dibromo-4-hydroxybenzaldehyde *O*-(2,4-dinitrophenyl)oxime on 419
Mixing chamber, improved, for variable-dosage sprayers 717
Moisture, soil, effects, on competitive ability of weeds 518
Molecular structure and herbicidal activity, of some substituted ureas 580
Molinate, for barnyardgrass control in rice 467
Morphological and anatomical effects, pyrazon on bean 443
Morphology, honey mesquite, picloram and 2,4,5-T influence on 525
Movement and distribution, of pyrazon in soil 255
Movement of 2,4-D in field bindweed, picloram enhances 19
Movement of herbicides in plants, the effect of metabolic inhibitors on 68
Movement of several herbicides, through excised plant tissue 64
Movement, selectivity, and persistence, of soil-incorporated herbicides in carrot plantings 247
Mowing and spraying dates, influence on herbicidal control of Macartney rose 33
MSMA and trifluralin on Johnsongrass control in cotton, combines effect of 16
MSMA, for Johnsongrass control in sugarcane 333

N

N-(1,1-dimethylpropynyl)-3,5-dichlorobenzamide, transformations in soil 604
Nitralin analogs, in nutrient solution, preemergence herbicidal properties of 629
Nitrogen and quackgrass, effects on succeeding crops 29
Nitrogen form, effect on simazine accumulation in corn, soybeans, and rye 270

PAGE

Nozzles, wear and performance of, in applying trifluralin 489
Nucleic acids in plants 1
Nymphaeaceae, chemical composition of five species of 4
Nut quality and lateral roots of pecans, effect of herbicides on 520
Nutrient solution, preemergence herbicidal properties of nitralin analogs in 629

O

Oats and wheat, absorption and dissipation of TCA by 492
Oil, isoparaffinic, as a carrier for chlorpropham and terbacil ... 365

P

Paraquat and dihydroxybenzenes, comparisons of 179
Paraquat and light regime effects, on quackgrass growth 378
Paraquat, for range seeding in Cismontane California 238
Paraquat phytotoxicity, with Cu^{++} and CN^- interactions to a *Chlorella* 596
Parrotfeather, uptake and translocation of 2,4-D 193
Pebulate, dichlobenil, and fluometuron, pine seedling response to 292
Pecans, the effect of herbicides on lateral roots and nut quality of 520
Pecan trees, effect of herbicides on weed control and growth of 522
Penetration, foliar, of picloram and 2,4-D in aspen and balsam poplar 57
Peppermint and ivyleaf morningglory, selective action of terbacil on 373
Performance and wear of nozzles, in applying trifluralin 489
Persimmon, control with various herbicides and methods of application 572
Persistence and degradation, of pyrazon in soil 260
Persistence, selectivity, and movement, of soil-incorporated herbicides in carrot plantings 247
Phenology, reproduction of medusahead 451
Phosphate, inorganic, and herbicide influence, on phytase in seedlings 360
Phosphoric acid and ammonium nitrate, increase 2,4,5-T absorption by tree leaves 204
Phosphorus and herbicide influence, on root absorption of amiben and atrazine 357
Phosphorus, regulation of amitrole and diuron toxicity 619
Photosynthesis, inhibition by pyriclor 475
Photosynthesis rate, carbonic anhydrase activity, and CO_2 compensation concentration of plants 399
Phytase in seedlings, herbicide and inorganic phosphate influence on 360
Phytotoxicity, of bensulide and trifluralin in several soils 244
Phytotoxicity, of chloroxuron, factors influencing 98
Phytotoxicity, paraquat, with interactions of Cu^{++} and CN^- to a *Chlorella* 596
Phytotoxic properties, of substituted benzonitriles and derivatives 551
Picloram and 2,4-D, absorption and translocation in field bindweed 168
Picloram and 2,4-D, foliar penetration in aspen and balsam poplar 57
Picloram and siduron, for weed control in wheatgrass seedbeds 546
Picloram and 2,4,5-T, influence on honey mesquite morphology 525
Picloram, bioactivity of, influence of soil-moisture content on 110
Picloram, comparison of salt and ester formulation of 447
Picloram, effect on production and quality of seed and several grasses 171
Picloram, emergence of fourwing saltbush after spraying shrubs with 389
Picloram enhances 2,4-D movement in field bindweed 19
Picloram, HRS 587, fenac, and 2,3,6-TBA, granular vs. liquid formulations, for control of field bindweed 341
Picloram, reaction of wheat to 276
Picloram sensitivity, in plants 1
Picloram uptake by potato tuber tissue 22
Pine seedling response, to dichlobenil, fluometuron, and pebulate 292
Placement of herbicides, subsurface, injector-planter for 461
Planter-injector, for subsurface placement of herbicides 461
Plant litter and establishment, of alien annual weed species in rangeland communities 697
Poison ivy, effect of auxin on sprouting in 199

PAGE

Postemergence applications of atrazine, tolerance of sorghum to 410
Postemergence weed control in row crops, a recirculating spray system for ... 285
Potassium azide in the soil, behavior of ... 555
Potato tuber tissue, picloram uptake by ... 22
Precondition yellow nutsedge for control, by altering growth form ... 599
Preemergence herbicidal properties, of nitralin analogs in nutrient solution ... 629
Preemergence herbicides for sugarcane, evaluation technique for ... 608
Propanil and TCAB residues, in rice soils ... 464
Puerto Rico and Texas forests, effect of aerially-applied herbicides on ... 164
Purple nutsedge, anatomy of ... 631
Purple nutsedge, control with bensulide ... 338
Purple nutsedge, effect of AMA on synthesis and utilization of food reserves in ... 174
Purple nutsedge, the effects of dichlobenil on assimilate transport in ... 403
Pyrazon and dalapon, influence on the seasonal growth of sugarbeets ... 386
Pyrazon, effect on bean chloroplast ultrastructure ... 455
Pyrazon in soil, movement and distribution of ... 255
Pyrazon in soil, persistence and degradation of ... 260
Pyrazon on bean, morphological and anatomical effects of ... 443
Pyriclor, inhibition of photosynthesis by ... 475
Pyriclor, ultrastructural changes of tobacco chloroplasts induced by ... 48

Q

Quackgrass and nitrogen, effects on succeeding crops ... 29
Quackgrass growth, effects of paraquat and light regime on ... 378

R

Rainfall and soil incorporation, herbicidal activity as affected by ... 515
Rangeland communities, plant litter and establishment of alien annual weed species in ... 697
Rangeland, control of spring parsley on ... 623
Range seeding in Cismontane California, paraquat for ... 238
Reaction, of wheat to picloram ... 276
Recirculating spray system, for postemergence weed control in row crops ... 285
Regulation, of amitrole and diuron toxicity by phosphorus ... 619
Reproduction of curly dock, influences of soil temperature on 202
Reproduction of medusahead, phenology of ... 451
Research and teaching, in Weed Science ... 541
Reservoir, factors affecting growth of rooted aquatic plants in a ... 7
Residue and rate of dissipation of amitrole, in irrigation water 439
Residues, propanil and TCAB, in rice soils ... 464
Resistance, of common groundsel to simazine and atrazine ... 614
Response of Canada thistle ecotypes, to 2,4-D, amitrole, and intensive cultivation ... 253
Revegetation and weed control, functional environment of downy brome communities in relation to ... 154
Rhizomes, Johnsongrass, development of axillary buds from ... 218
Rhizomes, primary, in yellow nutsedge, validity of evaluating transformation of ... 408
Rice, bioassay of herbicide combinations with ... 336
Rice, molinate for barnyardgrass control in ... 467
Rice soils, propanil and TCAB residues in ... 464
Roadsides, Canada thistle control on ... 307
Root absorption of amiben and atrazine, herbicide and phosphorus influence on ... 357
Root and foliar absorption, of atrazine applied postemergence to broadleaf weeds ... 349
Root dips, activated carbon, on transplanted strawberries ... 577
Root growth, and implanted soil mass technique to study effects of herbicides on ... 279
Root growth, a technique to assay herbicide translocation and effect on ... 715
Roots, lateral, and nut quality of pecans, effect of herbicides on 520
Roots, soybean, in culture solutions, release of herbicides by 214
Roots, soybean, uptake of herbicides in culture solutions ... 642

PAGE

Root temperature, effect on absorption and translocation of atrazine in soybeans ... 115
Row crops, a recirculating spray system for postemergence weed control in ... 285
Rye, soybeans, and corn, effect of nitrogen form on simazine accumulation in ... 270

S

Salt and ester formulations of picloram, comparison of ... 447
Scotch thistle suppression, economic evaluation of ... 583
Seasonal growth of sugarbeets, influence of pyrazon and dalapon on ... 386
Sediment and water, degradation kinetics and persistence of silvex in ... 413
Seed characteristics and seedling emergence, of Dalmatian toadflax ... 720
Seed depth and herbicide placement, velvetleaf control as influenced by ... 459
Seed dormancy, weed, histochemical studies in ... 106
Seed germination studies, a low temperature-gradient bar for 575
Seed in several grasses, effect of picloram on production and quality of ... 171
Seedling cool-season grasses, selective weed control in ... 288
Seedling emergence and seed characteristics, of Dalmatian toadflax ... 720
Seed size, soybean, influence on response to atrazine ... 162
Seeds, weed, in soils, changes in dormancy and viability ... 265
Selective action, of terbacil on peppermint and ivyleaf morningglory ... 373
Selective action, of trifluralin for control of green foxtail in wheat ... 754
Selective weed control, in seedling cool-season grasses ... 288
Selective weed control, in sugarbeets ... 625
Selectivity, movement, and persistence, of soil-incorporated herbicides in carrot plantings ... 247
Selectivity of bromoxynil, in a resistant and susceptible species 725
Siduron and picloram, for weed control in wheatgrass seedbeds 546
Silvex, degradation, kinetics and persistence in water and sediment ... 413
Simazine accumulation, in corn, soybeans, and rye, effect of nitrogen form on ... 270
Simazine and atrazine, resistance of common groundsel to ... 614
Simazine, uptake and elimination of, by green sunfish ... 134
Soil, behavior of potassium azide in ... 555
Soil, diffusion of three thiazines in ... 53
Soil-incorporated herbicides in carrot plantings, selectivity, movement, and persistence of ... 247
Soil incorporation and rainfall, herbicidal activity as affected by 515
Soil mass technique, implanted, to study herbicide effects on root growth ... 297
Soil moisture content, influence on bioactivity of picloram ... 110
Soil moisture effects, on competitive ability of weeds ... 518
Soil, movement and distribution of pyrazon in ... 255
Soil, persistence and degradation of pyrazon in ... 260
Soils, absorption of ametryne and diuron by ... 470
Soils, changes in dormancy and viability of weed seeds in ... 265
Soils, phytotoxicity of bensulide and trifluralin in ... 244
Soils, rice, propanil and TCAB residues in ... 464
Soil temperature influences on reproduction of curly dock ... 202
Soil, transformations of N-(1,1-dimethylpropynyl)-3,5-dichlorobenzamide in ... 604
Sorghum tolerance, to postemergence applications of atrazine 410
Soybean, crabgrass, and corn, linuron absorption, distribution, and metabolism in ... 25
Soybean roots in culture solutions, release of herbicides by ... 214
Soybean roots, uptake of herbicides in culture solutions ... 642
Soybeans and weeds, effects of nitralin and chloroxuron combination on ... 616
Soybeans, atrazine in effect of root temperature on translocation and absorption of ... 115
Soybeans, combinations of herbicides and other pesticides on 128
Soybean seed size, influence on response to atrazine ... 162
Soybean seed, uptake of herbicides by ... 101
Soybeans, rye, and corn, effect of nitrogen form on simazine accumulation in ... 270
Spray device, for application of chemicals to plants ... 549
Sprayers, tractor-mounted, for applying herbicides to brush 497

PAGE

Sprayers, variable-dosage, and improved mixing chamber for 717
Spraying and mowing dated, influence on herbicidal control of Macartney rose 33
Spray system, recirculating, for postemergence weed control in row crops 285
Spring parsley control, on rangeland 623
Spring parsley, xanthotoxin and bergapten in 479
Spring wheat, effect of frost on the response to 2,4-D 235
Sprouting cycles and dormancy, of wild garlic 112
Sprouting in poison ivy, effect of auxin on 199
Strawberries, transplanted, activated carbon root dips on 577
Structure, molecular, and herbicidal activity, of some substituted ureas 580
Sugarbeet root aberrations, as induced by trifluralin 131
Sugarbeets, control of kochia with benzadox 183
Sugarbeets, influence of pyrazon and dalapon on the seasonal growth of 386
Sugarbeets, selective weed control in 625
Sugarcane, evaluation technique for preemergence herbicides for 608
Sugarcane, MSMA for Johnsongrass control in 333
Sweet corn, effects of weed control methods on 707

T

2,4,5-T absorption by tree leaves, increased by ammonium nitrate and phosphoric acid 204
2,4,5-T and picloram, influence on honey mesquite morphology 525
2,4,5-T, factors influencing commercial aerial applications of 37
2,4,5-T in bean plants, some effects of humidity on translocation 396
2,3,6-TBA, picloram, HRS 587, and fenac, granular vs. liquid formulations, for control of field bindweed 341
TCA, absorption and dissipation by wheat and oats 492
TCAB and propanil residues, in rice soils 464
Teaching and research, in Weed Science 541
Technique, to assay herbicide translocation and effect on root growth 715
Temperature-gradient bar, for seed germination studies 575
Temperature, soil, influences on reproduction of curly dock ... 202
Terbacil and chlorpropham, isoparaffinic oil as a carrier for ... 365
Terbacil on peppermint and ivyleaf morningglory, selective action of 373
Texas and Puerto Rico forests, effect of aerially-applied herbicides on 164
Tobacco chloroplasts, ultrastructural changes induced by pyriclor 48
Tobacco, flue-cured, herbicide performance in 648
Tolerance of corn to atrazine, environmental influence on 509
Toxicity, absorption, translocation, and metabolism, of 2,4-D in yellow nutsedge 733
Toxicity, amitrole and diuron, regulation by phosphorus 619
Transformation of primary rhizomes in yellow nutsedge, validity of evaluating 408
Transformations, of N-(1,1-dimethylpropynyl)-3,5-dichlorobenzamide in soil 604
Translocation, absorption, and metabolism, of 2,4-D by honeyvine milkweed 653
Translocation and absorption, atrazine in soybeans, effect of root temperature on 115
Translocation and absorption, of ^{14}C-labeled 2,4-D and picloram in field bindweed 168
Translocation and degradation of bromoxynil, in a resistant and susceptible species 729
Translocation and uptake, of 2,4-D in parrotfeather 193
Translocation, herbicidal effect, and uptake, of diphenamid ... 692
Translocation, herbicide, and effect on root growth, a technique to assay 715
Translocation, metabolism, toxicity, and absorption, of 2,4-D in yellow nutsedge 733
Translocation of 2,4,5-T in bean plants, some effects of humidity on 396
Transport, assimilate, in purple nutsedge, the effects of dichlobenil on 403
Triallate and diallate, effect on wild oat and wheat cells 80
Triazines, diffusion in soil 53

PAGE

Trifluralin, aberrations in sugarbeet induced by 131
Trifluralin and bensulide phytotoxicity, in several soils 244
Trifluralin and MSMA on Johnsongrass control in cotton, combines effect of 16
Trifluralin, selective action for control of green foxtail in wheat 754
Trifluralin, wear and performance of nozzles in applying 489
Tubers, vitality of, yellow nutsedge treated with arsenical herbicides 437

U

Ultrastructural changes of tobacco chloroplasts, induced by pyriclor 48
United States and Canada, history of weed control in 294
Uptake and translocation, of 2,4-D in parrotfeather 193
Uptake of copper, effect of diquat in aquatic plants 703
Uptake, of herbicides, by soybean roots in culture solutions 642
Uptake of herbicides, by soybean seed 101
Uptake of picloram, by potato tuber tissue 22
Uptake, translocation, and herbicidal effect, of diphenamid 692

V

Velvetleaf control, as influenced by herbicide placement and seed depth 459
Velvetleaf, germinating, metabolism of food reserves in 565
Velvetleaf, germination of 561
Viability and dormancy changes, of weed seeds in soils 265
Vitality, of tubers of yellow nutsedge treated with arsenical herbicides 437
Volatility, adherence, and efficacy of herbicides, influence of three drift control adjuvants on 505

W

Water and its inhabitants, effects of herbicides on 738
Water and sediment, degradation kinetics and persistence of silvex in 413
Water, irrigation, herbicide content following canal-bank treatment for weed control 687
Wear and performance of nozzles, in applying trifluralin 489
Weed competition, influence on cotton 149
Weed control and growth of pecan trees, effect of herbicides on 522
Weed control and revegetation, functional environment of downy brome communities in relation to 154
Weed control, herbicides and irrigation water following canal-bank treatment for 687
Weed control history, in the United States and Canada 294
Weed control in cotton, herbicides applied as liquid sprays and granules for 751
Weed control, in wheatgrass seedbeds with siduron and picloram 546
Weed control methods, effects on sweet corn 707
Weed control, postemergence, in row crops, a recirculating spray system for 285
Weed control, selective, in seedling cool-season grasses 288
Weed control, selective, in sugarbeets 625
Weed infestations, maintained, under field conditions 206
Weeds and soybeans, effects of nitralin and chloroxuron combination on 616
Weeds, broadleaf, root, and foliar absorption of atrazine applied postemergence 349
Weed science, contribution to food production in Great Britain 681
Weed Science, in a crop protection program 74
Weed scientists' role, food production in Canada 545
Weed seed dormancy, histochemical studies in 106
Weed seeds in soils, changes in dormancy and viability 265
Weed species, alien annual, establishment of, with plant litter in rangeland communities 697
Weeds, soil moisture effects on competitive ability of 518
Western false hellebore, chemical control of 481
Wheat and oats, absorption and dissipation of TCA by 492
Wheat and wild oat cells, effect of diallate and triallate on 80
Wheatgrass seedbeds, weed control with siduron and picloram 546
Wheat, reaction to picloram 276
Wheat, selective action of trifluralin for control of green foxtail in 754
Wheat, spring, effect of frost on the response to 2,4-D 235

PAGE

White cockle and yellow rocket control, in established alfalfa 329
White cockle, yellow rocket, and hoary alyssum, carbohydrate storage and utilization by ... 140
Wild cane, control in corn ... 272
Wild garlic, dormancy and sprouting cycles of ... 112
Wild oat and wheat cells, effect of triallate and diallate on ... 80
Winter injury, of recently-established Bermudagrass, effects of DCPA on ... 711
Witchweed germination, ethylene, and 2-chloroethylphosphonic acid ... 586

X

Xanthotoxin and bergapten, in spring parsley ... 479

Y PAGE

Yellow nutsedge, biological control studies with *Bactra verutana* Zeller ... 393
Yellow nutsedge, precondition for control, by altering growth form ... 599
Yellow nutsedge, toxicity, absorption, translocation, and metabolism of 2,4-D in ... 733
Yellow nutsedge tubers, vitality of, treated with arsenical herbicides ... 437
Yellow nutsedge, validity of evaluating transformation of primary rhizomes in ... 408
Yellow rocket and white cockle control, in established alfalfa 329
Yellow rocket, white cockle, and hoary alyssum, carbohydrate storage and utilization by ... 140